MARKETING PLAN FOR A PETROLEUM COMPANY IN THE PEARL RIVER DELTA AREA

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ABSTRACT

The objective of this research is to explore the market opportunities of Mobil's products in the Pearl River Delta Area including Shenzhen.

Mobil Oil Hong Kong Limited is a subsidiary of Mobil Oil Corporation. It is a major supplier of quality petroleum products in Hong Kong and it also serves the China market. The product lines it sells in China include gasoline, diesel oils, liquid petroleum gas, fuel oil and lubricants.

After gathering some secondary data from Mobil Hong Kong Limited and having done some literature reviews, a market survey was carried out. The survey included two parts. The first part was the mail questionnaires and the second part was the personal in-depth interviews. The main findings from the survey were that local suppliers generally dominated the fuel market, except for gasoline, and foreign suppliers dominated the lubricant market. The main criteria for customers to choose fuels were price and a constant supply, whereas that for them to choose lubricants were quality and convenience.

In view of the information obtained and Mobil's corresponding positions in different product markets, Mobil was suggested to concentrate more of its investment on

gasoline, automotive diesel oil, liquid petroleum gas and industrial lubricant. On the other hand it should seek cashflow from industrial diesel oil, heavy fuel oil and automotive lubricant.

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CHAPTER I

INTRODUCTION

Problem Identification

The objective of the research is to explore the market opportunities of Mobil's products in the Pearl River Delta Area - the new industrial zone in China.

Company Background of MOBIL

Mobil Oil Hong Kong Limited (MOHK) is a major supplier of quality petroleum products in Hong Kong. Markets in Macau, Taiwan and the People's Republic of China (PRC) also are served by this subsidiary of Mobil Oil Corporation, a company whose reputation for services and achievements in Asia reaches back nearly a century.

Mobil's Chinese name, Mei Foo, means "beautiful and trustworthy". It became well-known in Asia early in the century, when the company introduced the Mei Foo lamp. The inexpensive, kerosene burning lamp was soon in demand throughout China. MOHK has continued the tradition of innovation and since then, many new and more advanced products have been introduced to the region.

MOHK's products include:

- transportation fuels for automobiles, diesel vehicles, aircraft and ships.
- a wide range of advanced lubricants for industrial machinery, motor vehicles, and the aviation and marine industries.
- residual fuel oils for industrial power plants.
- liquid petroleum gas (LPG).
- marine chemical solvents.

Among the most recent is Mobil's new-formula gasoline and automotive diesel fuel with additives to meet the special needs of modern fuel-injection engines. Mobil was also among the first oil companies to open markets in the PRC.

When the PRC opened its door for outside investment, Mobil was the first oil company to buy gasoline and jet fuel from the Chinese , and one of the first to sell products there. Mobil has been selling petroleum products to the PRC since 1975, and in 1986 helped open the PRC's first plant - in Shanghai - to blend Mobil lubricants.

The business relations between Mobil and PRC are widespread and growing. Mobil provides high-grade industrial lubricants for the sophisticated machinery helping modernize China, and sells a full range of advanced marine and aviation fuels and lubricants for the PRC's state-owned shipping companies and national airline.

Mobil was among the first, in 1983, to establish a service station in the Shenzhen Special Economic Zone (SEZ), and in 1986 opened the first foreign-investment station in the Guangzhou Economic and Technical Development Zone. There are all together eleven Mobil stations now operating in the PRC, and more are planned.

Mobil dealers and distributors are at the core of the company's effort to grow with the Pearl River Delta Area. Dealers handle about 85% of Mobil's business outside of aviation and marine. Most Mobil LPG and kerosene sales are handled by a chain of Mobil distributors and dealers. And Mobil's growing number of stations in the PRC also are distributor-operated.

SWOT Analysis of Mobil Oil in the China Market

Current Strategies

Although Mobil Oil (HK) Ltd. was one of the first oil companies who sold petroleum products to the China market, the marketing strategies of Mobil is actually quite conservative. Dealers and distributors form the main core of the business of Mobil in China. About 85% of sales in China are through these dealers and distributors. On the other hand, all the service stations in China are joint-ventures with the local oil dealers. Technical supports are only provided to those large customers and when they are requested by the dealers and distributors.

As the main responsibility of the sales team is to provide technical support to the customers, they are usually problem-solvers rather than searching business opportunities for the company. Owing to the strategies employed by the company, the burden of sales and products promotion would fall on the dealers and distributors.

Strengths

1. Mobil is famous for its experience and reputation for quality products and technical services back-up.
2. MOHK has complete freedom in negotiating prices of its products to the dealers.
3. Mobil offers a full line of lubricants and petroleum products in China.
4. Mobil has established lubricant blending plant capabilities in Hong Kong and Shanghai to give its customers low delivery lead time.
5. Sophisticated laboratory facilities in Hong Kong enable Mobil chemists to carry out product quality control testing, as well as analysis of customers' used lubricant samples for early detection of engine problems.
6. Mobil has established 11 services stations throughout Southern China allowing convenient import of motor fuels and lubricants, both automotive and industrial.
7. Mobil also arranges technical seminars and visits to major clients by specialists from other Mobil worldwide affiliates. These activities perform a valuable educational

function and aid in improving technological standards amongst the end-users.

8. The quality of Mobil's products are usually of better quality than the local ones. The differences are most obvious in products like gasoline and various kinds of lubricants.

Weaknesses

1. As most of the sales of Mobil in China are through dealers and distributors, there would be little control on the retailing prices of its products.

2. As technical support is an indispensable part in the sales of lubricants, indirect sales of Mobil's products may enable the customers to misuse Mobil's products. This may spoil the image of Mobil.

3. Mobil has only one dealer in Shenzhen to sell LPG and the size of this dealer is quite small. The facilities there can only serve a small area.

4. The prices of Mobil products are higher than those local ones.

5. There are only a few distribution outlets for Mobil products and Mobil also does not has any representing office in Shenzhen.

Opportunities

1. The rapid economic growth in China has exacerbated shortages of industrial raw materials, including petroleum, and this generates a great demand for imported materials.

2. The increase in the number of cars together with the rapid increase in the industrial output will enable the demand for oil products to rise.

3. The rise in the number of hotels in Shenzhen will inevitably increase the demand for LPG and industrial diesel oil in the area.

4. As the taxes imposed on petroleum products are lower in Shenzhen than in Hong Kong, the prices for gasoline and automotive diesel oil would be cheaper.

5. Despite the lack of monetary reserve of China, there are still large construction projects being carried out in the Shenzhen area. (See Appendix 1.) These are large potential customers for Mobil.

6. Shenzhen and its surrounding areas have attracted a large number of investments in recent years, especially for those industries which are considered as irritating and too costly to continue in Hong Kong. Examples are dyeing and plastic industries.

7. The rapid growth in the number of factories and household electric appliances in recent years has put much pressure on the power supply of the area. Except for the Shenzhen SEZ, on average, there will be no electricity supply in the surrounding areas three days out of a week.

8. The quality of the locally manufactured lubricants are usually of inferior quality to the imported ones.

9. The supply of the local petroleum products are subject to seasonal fluctuation, since most of the local petroleum

products are supplied from the oil fields in the North and the production of the Namhai oil field still does not yield significant output to support the industrial growth in Shenzhen.

Threats

1. The price of the local petroleum products are usually much cheaper than the imported ones and this will threaten Mobil's situation in China.
2. Shell and Caltex have already got their representative offices in Shenzhen and this enables them to be closer to the market.
3. Shell and Caltex have established their oil tanks in Shenzhen and this enables them to deliver their products to the customers in a more timely manner.
4. The policy of retrenching basic basic facility constructions would inevitably lower the petroleum products demand of the Shenzhen area.
5. After the June 4th event last year, many proposed investments in Shenzhen have been postponed or even canceled. This will directly affect the industrial development in Shenzhen and its surrounding area.
6. Recently, some fake Mobil's lubricants have been found in China, these poor quality products could irreversibly destroy the image of Mobil's products.

CHAPTER II

RESEARCH METHODOLOGY

The Research Scope

In order to achieve the objective of this research project as discussed in the Problem Identification section, the following information would be needed:

1. The annual consumption of various petroleum products in different industries in Shenzhen.
2. The future growth rate of the demand for petroleum products in Shenzhen and its surrounding areas.
3. Identification of those large consumption customers.
4. The criteria for the end-users to select petroleum products.
5. The distribution channels from which the end-users obtained their petroleum products.
6. Identification of Mobil's competitive position in the market.

Methodology

In order to make easy comparison in the consumption of petroleum products , the industries of Shenzhen and its surrounding areas were divided into nine categories. They were Plastic & Toys, Construction, Machinery, Electronic Components and Equipment, Food Processing, Metals and Metal Production, Hotel and Restaurant, Dyeing & Knitting, and others. This manner of classification was actually the same as the classification method employed by the Shenzhen Industrial Development Council.

The research would be divided into two parts, the first part would be the background analysis of the future industrial development in the Pearl River Delta Area. (A map of the Guangdong Province and a map of the Pearl River Delta Area are shown in Appendix 2.) The emphasis would be on the development direction and the predicted growth rate of the existing industries. The second part of the research would be on the current and future consumption rates of the petroleum products of individual industry. Moreover, the criteria for these industries in selecting petroleum products would also be the interest in this survey. Finally, those heavy consumption customers would be identified to expand the sales of Mobil's products.

Secondary Data

Both Primary and Secondary Data would be collected. For the first part of the research, secondary data would be the main source of information. There were two sources of secondary data, one was from the Mobil's internal reports on the sales records, sales projection, current and predicted market shares of various petroleum products. The other source was from the external agencies. For example, the Economic Censuses published by the Statistics Department of the China Government, several business periodicals, such as China Market and The Directory of China Trade, which concerned about the current development in China trade and some monthly reports of the local dealers and distributors of Mobil.

Primary Data

Primary data are also collected and they are mainly used in the second part of the survey. Two methods had been employed in the survey and they were mail questionnaire and personal in-depth interview. Both methods would be used with the same questionnaire.

Questionnaire

A Questionnaire had been constructed in order to ask individual customers their annual consumptions and criteria in selection of petroleum products. A copy of it was shown in Appendix 3. The mail questionnaire survey was done in

between July and September 1989. A cover letter (Appendix 4) accompanied with the questionnaire was used to explain the nature of this study. A structured and direct type of questionnaire was used in the survey. The questionnaire contained open-ended questions, multiple-choice questions and a dichotomous question.

The first question in the questionnaire would classify the respondent into the industrial classification defined above. Question 2 to Question 6 would ask information about fuels, while the remaining questions would ask information about lubricants. For both product lines, the types of products being used by the respondents, where they obtained the products, their selection criteria and consumption rates were asked.

Mail Questionnaire

Samples of companies from different industries were taken from the telephone directory of the GuangDong Province. As there was no ready-made mailing list for our target respondents, all the factories in the Pearl River Delta Area listed in the GuangDong Province Telephone Directory were sent with the questionnaire. In fact, the companies listed in the telephone directory were not the only companies in the area. They were those who paid for being listed in the telephone directory. All together 167 questionnaires were sent and each with a return envelope.

The advantage of using mail questionnaire is its low

costs. Moreover, there will also be a lower degree of response error, since there is no interviewer with whom the respondent must interact either in person or in telephone, provided that the questions are properly set and easy to understand. Use of mail questionnaire also has the advantage of allowing the respondent to more carefully formulate and record his or her response at a pace that is more leisurely and free from distractions.

However, there are also some important disadvantages in using mail questionnaire. They include the lack of explanation of a question if it is not clear and self-selection bias.

Personal In-depth Interview

Personal depth interview was another means in collecting primary information. The principal strength of personal in-depth interview lies in its capability to uncover more complete and basic answers to questions that might be answered at a relatively superficial level if only mail questionnaire survey is done.

The targets of our personal interview were those factories which employed more than 150 workers because we were interested in large customers. The sources of the sample were come from the information supplied by the sales team of Mobil.

Thirty-eight factories were chosen and visited in August

1989. During the interviews, the main concern would be on the annual consumption of petroleum products of the factory, the distribution channels from which the factories obtained the petroleum products, the brands they were using then and the criteria for them in choosing petroleum products, especially when choosing lubricants. Moreover, the respondent are encouraged to express their feeling on the present petroleum products they are using. In addition, four dealers of Mobil were interviewed to get more information, especially on industries which were not included in the sample of the personal in-depth interview.

Limitations

Since the sample for the mail questionnaire used in this research was obtained from the telephone directory of the GuangDong Province, it was not a random sample because not all companies were listed in the directory. Since there might be some difference between those companies found in the telephone directory and those not in it, it would lead to nonresponse error. In addition, a low response rate would also increase the probability of higher nonresponse error.

Moreover, some industries might have only a small number of respondents and the results obtained might not be used as a generalization of the particular industries.

CHAPTER III

FINDINGS - THE INDUSTRY

The Local Economy and Market

Shenzhen - The biggest economic experiment in China

The Shenzhen (SEZ) was formed in August 1978. According to the Shenzhen Yearbook of 1989, RMB$10.3 billion has been spent on transforming the old dilapidated town into a modern 48km^2 city. Its total export value went up from RMB$60.6 million in 1979 to RMB$57.6 billion in 1988.

In 1989, the industrial output of Shenzhen was RMB$114 billion. About 80% of the output came from light industry, while the remaining 20% came from heavy industry. The most important light industry in Shenzhen is the electronics industry, which occupies 51.4% of the total industrial output. The other major light industries in Shenzhen include textiles, food and beverages, and leather.

Although heavy industry occupies only 20% of the total industrial output, Shenzhen has three important types of heavy industries which make up almost all the heavy industrial output of Shenzhen. They are machine building, building materials and chemicals. The machine building and

building material industries are scattered around the industrial zones in Shenzhen, while chemicals industry is concentrated in the Shekou Industrial Zone. There are two large quarry mines in Shenzhen, one is in Mui Lin and the other is in Lin Tong.

Tourism is another pillar in the economic structure of Shenzhen. In 1979, the total revenue from tourists were about RMB$0.57 million. However, in 1987, the revenue had already increased to RMB$4.05 billion. On the other hand, as the economic and industrial development are growing at high pace, more and more people from different countries will have to travel to Shenzhen. Thus, it is not surprising that the number of hotels in Shenzhen has already increased to 110 in 1989. Liquid Petroleum Gas (LPG) and Industrial Diesel Oil (IDO) are the main fuels used by these hotels and their consumptions are usually quite large.

Everyday, thousands of cars and trucks cross the border between Hong Kong and Shenzhen. These trucks carry raw materials from Hong Kong to the processing factories in Shenzhen and the Pearl River Delta Area and are loaded with finished or semi-finished goods from these factories back to Hong Kong. As the tax imposed on petroleum products is lower in Shenzhen than in Hong Kong, many drivers prefer to fill their oil tanks in Shenzhen as the price is much cheaper.

Owing to the rapid development of industries and tourism in the Pearl River Delta Area, the living standard

of the people has risen, and more and more people are now living in those new multi-storey buildings. The domestic demand for the LPG in cooking and heating would inevitably be raised. On the other hand, there are very few gas fields in China and most of them are located in the North-east and North-west. The production from these gas fields cannot even meet the demand in northern China. Thus, it is impossible for the Chinese to transport LPG from the north to the Pearl River Delta Area. The lack of supply of LPG in China together with the increase in demand creates a very good opportunity for the foreign oil companies to open up the China market.

Finally, although many constructions within Shenzhen have been postponed or canceled due to the lack of monetary reserve in China, several large basic facility constructions can still be identified. They are listed in Appendix 1.

After the June 4th event of 1989, most of the proposed investments in China have either been postponed or even canceled. On the other hand, 1991 and 1992 would be the peak for the Chinese government to repay its loans. This will lead to a large amount of cash outflow during these years. It is a common belief that the Chinese government would further retrench its investments on basic facility constructions and state-run enterprises. Obviously, this would have a great impact on the industrial development in the Pearl River Delta Area. As predicted by many economic journals, the demand for the raw materials, which include

petroleum products, would not be increased at a rate as fast as in the previous years. Some even forecast that there may be negative growth in the coming two years.

Conditions in the Pearl River Delta Area except Shenzhen

Recently, more and more Hong Kong manufacturers have moved their production to the Pearl River Delta Area instead of the Shenzhen SEZ. With the increasing salary rate and rent, some labor intensive industries become unprofitable in Hong Kong. It is natural for them to move to China. However,there are strict controls on the types of industry in the SEZ which favors high technology production. As a result, the smaller, labor intensive and primitive industries are pushed to enter areas other than the SEZ. Foreign businessmen investing in the Delta Area are mainly from small Hong Kong companies which are involved in low-end processing light industries.

Compared to the SEZ, the infrastructures of the Delta Area are not sufficient. The road connections are poor. There is also a shortage of power supply. On the average, three days out of a week, there will be no electricity supply.

As most of the factories in the Pearl River Delta Area are low-end processing light industries, the demand for lubricants is only small in quantity, except for the plastic industry.

On the other hand, the electricity supply in the Delta Area is unstable and unreliable. Many factories solve this problem by installing their own electric generators. According to the estimation of the local oil dealers in China, about 40% of the factories in the Pearl River Delta Area have already installed their own electric generators. The fuel used in these electric generators is usually IDO. An average electric generator consumes 80-100 kg of IDO per hour. Usually, these IDO is supplied by the local dealers as the price is only 1/2 to 2/3 of the imported ones.

Table 3.1 shows the distribution of the types of industries in the Pearl River Delta Area.

TABLE 3.1

A COMPARISON OF THE TYPES OF INDUSTRIES IN DONGGUAN, HUAYANG AND JIANGMEN

Place	No. of factories (appr.)	Major Types
DongGuan	2500	Electronics, Dyeing Garment
JiangMen	2750	Electronics, Metals Metals' Accessories
HuaYang	2050	Electronics, Garment, Dyeing, Leather.

Competitive Situations

In the fuel market, most of the market share is occupied by the local dealers. These dealers can be divided into two types. The first type is the state run local dealers and the other is the private local dealers. Usually state run dealers are larger in size and the private dealers are more numerous. The state-run dealers usually have many service stations. Some of these service stations are joint ventures with foreign oil companies.

Shenzhen Petroleum Company and Shekou Petroleum Company are two of the largest state-run local dealers in Shenzhen.

Shenzhen Petroleum Company has many service stations in Shenzhen. It also has joint venture service stations with Mobil and Esso. Shekou Petroleum Company is a subsidiary of the China Merchants' Company while Shenzhen Gas Company is a subsidiary of the Shekou Petroleum Company. These two large dealers both have their own wharfs, tankers and oil tanks in Shenzhen.

As the demand for fuels is growing at high pace, it is impossible to rely on just the local fuel products. Thus, many large local dealers have already formed joint ventures with the foreign oil companies to open service stations. In addition to these service stations, many dealers also import foreign petroleum products directly from Singapore and Hong Kong. The price of oil products from these local dealers is usually lower than from the dealers from Hong Kong. For those China produced petroleum products, the price is about half of the imported ones. For those products which are directly imported from Singapore by local dealers, the price is also cheaper, which is about 2/3 of the Hong Kong dealers.

In view of the foreign oil companies, Shell and Caltex have already got their representative offices and oil tanks in Shenzhen. This enables them to be closer to their market.

As the quality of the locally produced lubricants are far inferior to the imported ones, the market share of the local lubricants has gradually declined relative to the

imported ones. The market share of the local lubricants are only about 20%. In the automotive lubricant market , Mobil is the market leader. The market share of Mobil is about 60%. However, in the industrial lubricant market, Shell is the market leader since Shell occupies about 40% of this market. The other competitors like Esso, Caltex and CRC are also very active in the market.

There is one local dealer of industrial lubricants which is worthy of mention. This is the Sun Oil Company Ltd. Sun Oil is not a very large lubricant products' company. However, the characteristic of this company is that it processes local lubricants and upgrades their quality. The lubricants base is purchased through the China Petroleum Company and the additives are imported from foreign countries. Thus, the quality is higher than the local lubricants but the price is much cheaper than the imported ones.

Product Markets and Mobil's Corresponding Positions

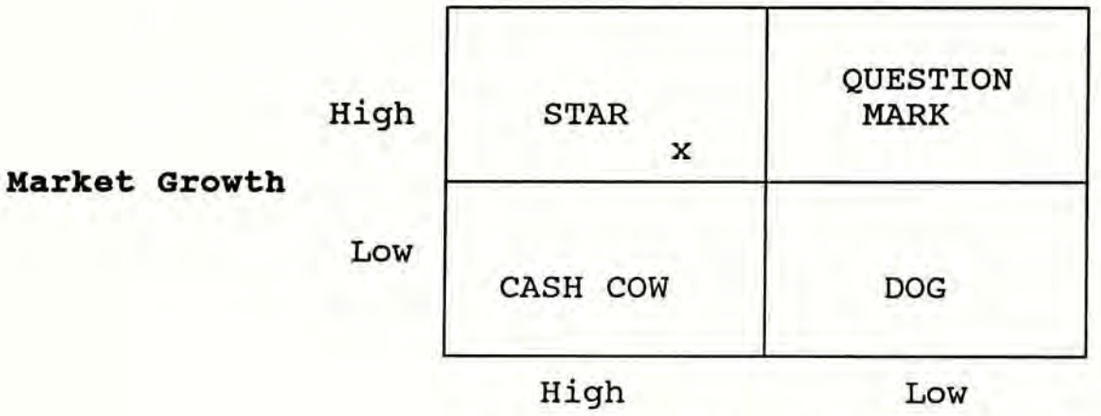
In this section, the product lines offered by Mobil in the China market are discussed one by one. The product lines include Gasoline, Automotive Diesel Oil (ADO), Industrial Diesel Oil (IDO), Liquid Petroleum Gas (LPG), Heavy Fuel Oil (HFO), and Lubricants. Lubricants can further be divided into Automotive Lubricants (AL) and Industrial Lubricants (IL). A list of abbreviations of these products is shown in Appendix 5.

In order to see Mobil's position in each market, the growth-share matrix developed by the Boston Consulting Group (BCG) is used in this research project. The BCG Matrix is a pictorial representation of one or a portfolio of business units in two dimensions. The horizontal axis corresponds to the relative market share enjoyed by a business, as a way of characterizing the strength of the firm in that business. The vertical axis indicates market growth, representing the attractiveness of the market in which the business is positioned.

In this section, the position of each Mobil product is identified first. The suggested strategic directions for each product line will be made in Chapter V.

Gasoline

The market situation of Mobil in the high-end gasoline market:



In 1988, the market share of Mobil in the imported gasoline market was 30.9%. (A market share report for 1988 is shown in Appendix 6.) The main users of this product are usually the imported cars and the cars from Hong Kong. When we compare the imported gasoline consumption in the first quarter of 1988 and 1989. The total demand has already increased 20 times. The main reasons for this rise in consumption are due to the increase in the number of imported cars in Shenzhen; the increase in the number of cars from Hong Kong; the increase in the number of service stations which provide more convenient outlets and finally the increase in knowledge about cars' maintenance.

However, it is also expected that the rising pace for the coming year will be flattened off. Obviously the retrenchment of the basic facility constructions together

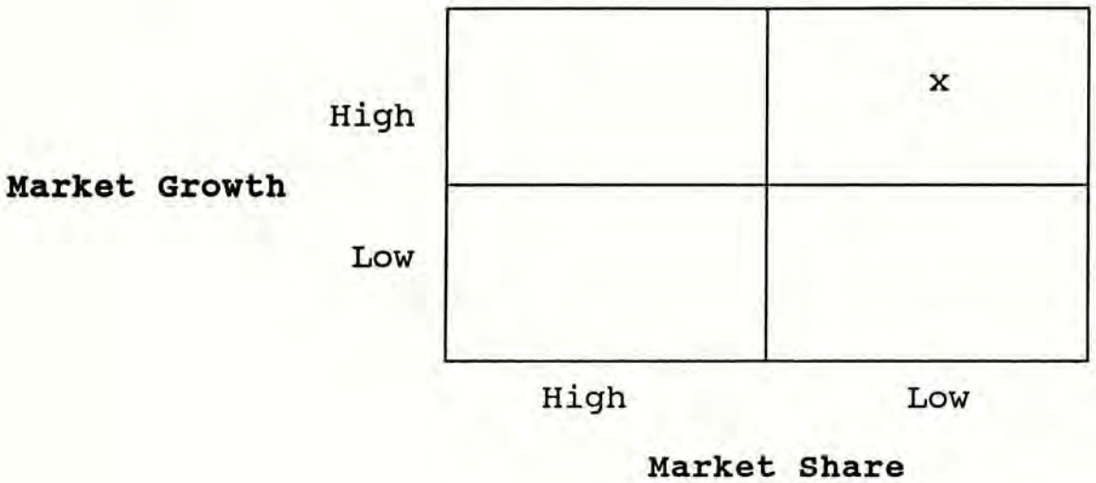
with the June 4th event will have an indisputable negative influence to the imported gasoline consumption in Shenzhen.

The sales of imported gasoline in Shenzhen are actually very dependent on the locations of the gas stations. For example, better sales can be expected for those stations which can be easily seen and are situated around the main transportation routes within Shenzhen and the main transportation routes between Shenzhen and Guangzhou.

The price of local gasoline is RMB$1.61/ltr and while that of the imported ones is RMB$3.56/liter. The price difference is quite large. It is very difficult for the imported gasoline to tap the low-end market. However, since the quality of the local gasoline is far more inferior to the imported ones in terms of performance and cleanliness, the target market of the imported gasoline should be of those middle to high end market.

Automotive Diesel Oil

The market situation of Mobil ADO:



The market share of Mobil in ADO in 1988 was about 8.3%. The major customers are imported cars, imported trucks and the trucks' fleets from Hong Kong.

In the first quarter of 1989, the total market is actually increased by 2 times when compared with the first quarter of 1988. Owing to the increase in the number of imported trucks and cars in Shenzhen and the increase in land transportation load between Hong Kong and the rest of GuangDong Province, the increase is quite reasonable.

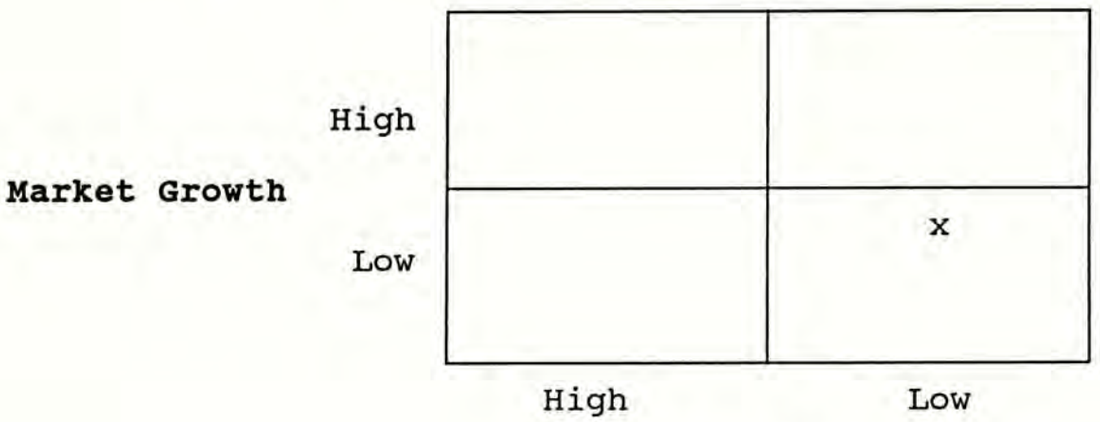
The sales of ADO is very similar to the sales of gasoline, the location of the service stations affects the sales very much. The best locations will be those situated along the main transportation routes and be easily observed.

The prices of local ADO and imported ones are RMB$1.40 and RMB$2.61, respectively. As the price gap between local

and imported ADO is still quite large, the target market will still be those middle to high end market.

Industrial Diesel Oil

The market position of Mobil IDO:



The market share of Mobil in IDO in 1988 was 12.5%. The major users are dyeing factories, metals' accessory factories, hotels and restaurants. Moreover, as electricity supply is very unstable in GuangDong Province, many of the factories have already installed their own electric generators. These electric generators create another potential IDO market for the oil company.

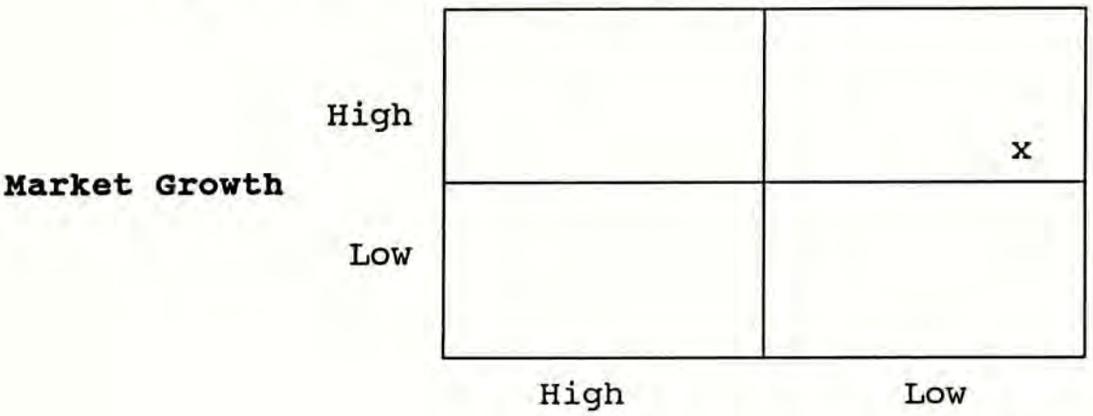
The market of imported IDO is actually dropping in the first quarter in 1989 when compared with the same quarter in 1988. This drop in sales is due to the cheap and abundant local supply of IDO from the local dealers.

Price is the major factor in affecting the sales of IDO, thus the sales volume of IDO will be very much affected

by the local supply of IDO.

Liquid Petroleum Gas

The market situation of Mobil LPG:



The market share of Mobil in LPG market was only 0.7% in 1988. This low market occupancy is mainly due to the inadequate LPG filling and transportation facilities of Mobil in Shenzhen. Moreover, Mobil has only one dealer which sells LPG in Shenzhen. The size of this dealer in LPG selling is quite small and the facilities there can only serve a small area. On the other hand, Shell, the market leader in this market, has already built up their own LPG tanks, LPG filling facilities and sales network in Shenzhen. This put MOHK in a even more disadvantageous competitive position.

The use of LPG can be divided into two types. The first one is the domestic use and the second is the industrial use. As more and more people live in high-rise buildings in Shenzhen, the demand for a clean fuel in domestic cooking

and heating will continue to grow.

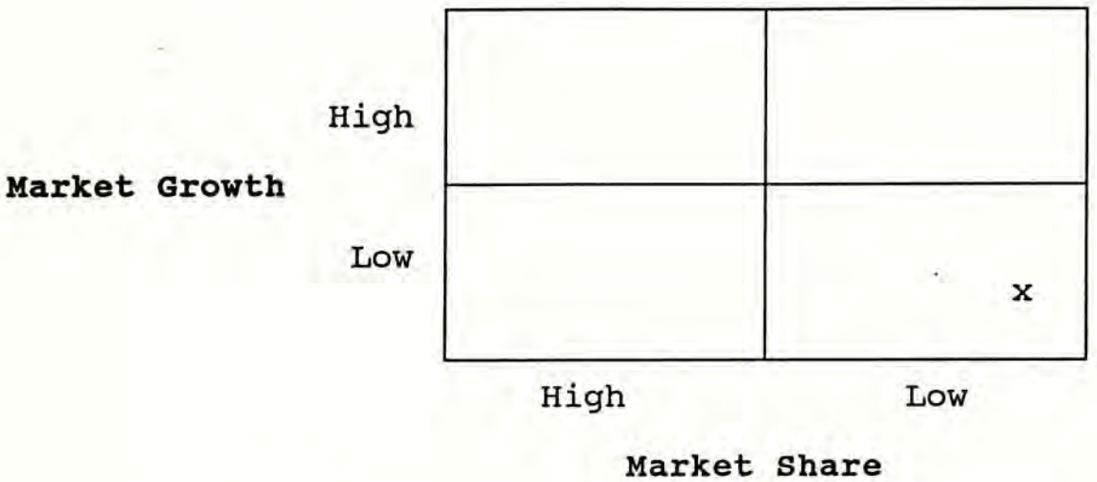
In the industrial aspect, LPG is mainly used by the metal accessory factories, hotels and restaurants. In the metal accessory factories, apart from the competition between different brands of LPG, there is also competition from the gas company, since oxygen can be used as a substitute to LPG in metal welding and cutting.

The hotels and restaurants market is dominated by Shell, as 80% of the hotels and restaurants in Shenzhen use LPG from Shell.

The competition in LPG market is mainly among the foreign large oil companies, as local LPG supply is very unstable and scarce. Thus, the problem of cheaper LPG supply from the local dealer will not happen as in the IDO market.

Heavy Fuel Oil

The market situation of Mobil heavy fuel oil:



Heavy fuel oil is considered as a kind of dirty fuel. The transportation of this fuel usually requires special tankers. The performance of Mobil in this market was quite weak in 1988. The market share was only 2%. Even worse is that the market share was dropping in the first two quarters of 1989.

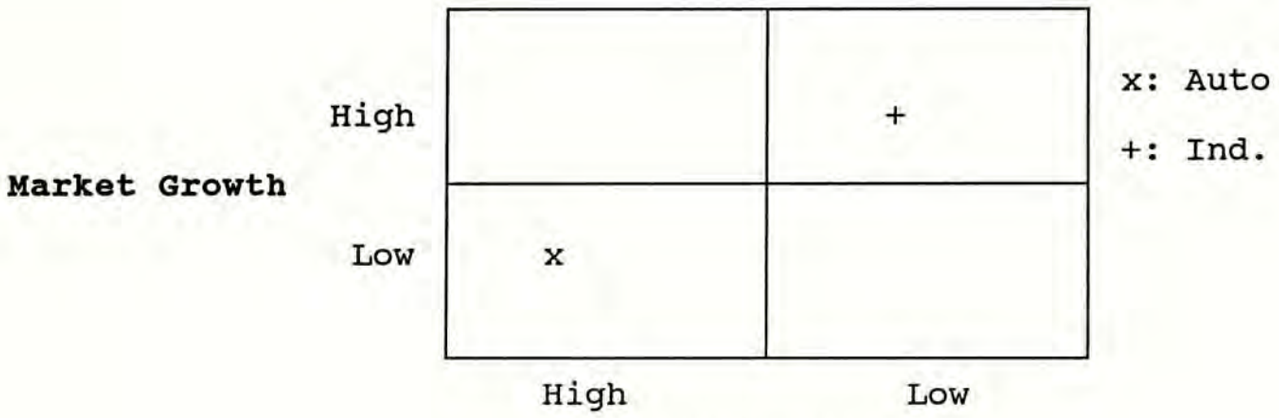
The main users of heavy fuel oil in Shenzhen are usually those industries which require boilers and furnaces. Thus, the major customers will be those dyeing factories, steelmills, and feedmills. The annual consumption of fuel oil in these industries is usually quite large. The consumption rated range from 200,000 to 30,000,000 liters per year, depending the types of the industries and the sizes to the factories.

The market leader in this market is CRC but Caltex has done a good job in the sales of heavy fuel oil to the dyeing

field. According to our survey, about 50% of the dyeing factories use heavy fuel oil supplied by Caltex. The other main competitors to Caltex in this market is CRC and Shell.

Lubricants

The market situation of Mobil Auto & Ind. Lubricants:



The market performance of MOHK in the lubricant market is much better than in the fuel market. In the first half of 1989, the market share of MOHK automobile lubricants was about 60% in Shenzhen and MOHK was the market leader in the lubricant market. However, the performance of industrial lubricants is much weaker, the market occupancy is only 15%, which is much lower than Shell.

In Mobil, there are more than two hundred types of lubricants and it is impossible to study the market potential of all the products all at once. Thus, this survey will only contain the most popular items in the market.

The most popular automotive lubricants produced by

Mobil are the Mobil Delvac 1100 series, Delvac 1300 series and the Mobilube GX series. These lubricants are usually retailed through the service stations in Shenzhen.

For the industrial lubricants, Mobilgard series, Mobil DTE 20 series, Mobilgear 600 series, Mobilgrease and Mobilplex series are the most popular items. (A list of Mobil's industrial lubricant products is shown in Appendix 7.) The major competitors in these fields are Shell, CRC and Caltex.

The lubricant market is usually dominated by the imported lubricants, since the quality of the imported lubricants are far superior to the local ones. Except for the plastic industry, the volume of lubricants used by each individual factory is usually small. However, as more and more factories have been established in Shenzhen and the Pearl River Delta Area, the market potential in these areas is quiet large. In the plastic industry, hydraulic oils are usually required by the injection machines. The average annual consumption per machine is about 2 barrels (209liters per barrel). Moreover, they usually change their hydraulic oil once a year. Thus, the consumption of a plastic factory will be very much dependent on the number of machines in the factory.

As different industries require different lubricants and even in the same industry, different factories require different types of lubricants. The use of the most appropriate lubricants in the production line is actually a

branch of complicated knowledge. Technical support is of utmost importance in the use as well as in the sales of lubricants. Since most people does not have a clear idea of what type of lubricants they should use in their factories, technical support in the after sales services is very significant in this market.

CHAPTER IV

FINDINGS - CUSTOMERS

Mail Questionnaire Findings

Of the 167 questionnaires, which had been sent to the factories in the Pearl River Delta Area, sixty-four were returned. The response rate was about 38.3%. Among these returned questionnaires, three questionnaires were discarded because of incomplete information provided by the respondents.

The remaining 61 questionnaires were divided into nine groups according to the industrial classification described in the Research Methodology section.

Distribution of Questionnaires in Different Industries

Table 4.1 showed the distribution of the questionnaires in different industries as well as the response rate.

TABLE 4.1

THE DISTRIBUTION OF THE QUESTIONNAIRES IN DIFFERENT INDUSTRIES

	No. of Questionnaire sent out	Return Questionnaire	Response Rate (%)
Plastic	18	8	44
Construction	8	1	13
Machinery	20	6	30
Electric Components & Equipment	44	14	32
Food Processing	4	1	25
Metals/ Metal Production	14	3	21
Hotel/ Restaurant	41	21	51
Dyeing and Knitting	16	7	44
Others	2	0	0
Total	167	61	36.5

As a ready made mailing list does not exist in China, the number of questionnaires sent out in each industry was actually controlled by two factors. The first one is the number of factories in the industry and the second is the importance of the industries to the oil company.

Plastic and Machinery industries are the traditional heavy users of lubricant products and thus they were selected in the survey. As electronics factories are the most numerous in the Shenzhen area, it is obvious that the number of questionnaires sent out in this industry would be the largest. For the Hotel/ Restaurant, Metals and Metal

Production, and Dyeing and Knitting industries, they usually are heavy consumers of the fuel products and thus considerable amount of questionnaires were sent out to these industries.

Moreover, one questionnaire had been sent to a feedmill factory and another was sent to a zipper factory. They were grouped into the 'other' category.

The response rate, in general, is quite satisfactory. For the Hotel/ Restaurant, Dyeing and Knitting, and plastic industry, the response rate were over 40%. However, for the Construction, Food Processing and Metals/ Metal Production, the response rate were too low and thus the results obtained might easily be subject to individual bias.

Generally speaking, the performance of the lubricant products were much better than the fuels products.

Number of Factories that Required Power Other Than Electricity

TABLE 4.2

NUMBER OF FACTORIES THAT REQUIRED POWER OTHER THAN ELECTRICITY

	Number of factories	Percentage(%)
Required	41	67
Not-Required	20	23

Types of Fuels which The Factories Required

TABLE 4.3

TYPES OF FUELS WHICH THE FACTORIES REQUIRED

	Number of factories	Percentage(%)
LPG	24	58.5
Diesel Oil	32	78.0
Gasoline	3	7.3
Fuel Oil	8	19.5

Diesel oil was the most popular fuel used by the factories, as 78.8% of the factories required diesel oil in their production process. The second one was LPG. The main users for LPG were restaurants and hotels. Fuel oil was exclusively used by those dyeing and knitting factories and

also steelmills. Gasoline was the fuel which had the least usage in industries, gasoline was mainly used by automobiles.

Channels from Which the Factories Obtained their Fuels

TABLE 4.4

CHANNELS FROM WHICH THE FACTORIES OBTAINED THEIR FUELS

	Number of factories	Percentage(%)
Dealers in Hong Kong	13	31.7
Dealers in China	27	64.0
Direct from oil company	4	9.8
Services Station	7	17.1

As the price of petroleum products from local oil dealers were usually lower than the dealers and oil companies in Hong Kong, most factories had their supply from those local dealers. The percentage of all the four channels added up together was greater than 100%, this was due to the factories usually had more than one channels in supplying their fuels.

Criteria for the Factories to Select Different Brands of Fuels

TABLE 4.5

CRITERIA FOR THE FACTORIES TO SELECT DIFFERENT BRANDS OF FUELS

(Percentage)

	Very Important	Important	Average	Irrelevant	Absolute Irrelevant
a. price	53.6	41.5	4.9	0.0	0.0
b. quality	4.9	17.1	68.3	7.3	2.4
c. convenience	17.1	39.0	19.5	17.1	7.3
d. technical support	0.0	0.0	17.1	80.5	2.4
e. delivery lead time	4.9	26.8	53.7	12.2	2.4
f. supply constantly	34.1	58.6	4.9	2.4	0.0

According to the above table, price, supply constantly and convenience were the most important factors which affected the factories in purchasing their fuels. Among these factors, price seemed to have a dominant effect on this issue. (more than 90% of the factories regarded price as important or very important factors)

Types of Lubricants Which the Factories Used

TABLE 4.6

TYPES OF LUBRICANTS WHICH THE FACTORIES USED

	Number of factories	Percentage(%)
Gear Oil	5	8.2
Cutting Oil	4	6.6
Engine Oil	61	100.0
Hydraulic Oil	32	52.5
Other	4	6.6

Engine oil (100%) and Hydraulic oil (52.5%) were the most popular products in the lubricants market. For the others, they were usually used in specific industries to suit special needs.

Channels from Which the Factories Obtained their Lubricants

TABLE 4.7

CHANNELS FROM WHICH THE FACTORIES OBTAINED THEIR LUBRICANTS

	Number of factories	Percentage(%)
Dealers in Hong Kong	44	72.1
Dealers in China	7	11.5
Direct from oil company	2	3.3
Services Station	18	29.5

Most factories in China obtained their lubricants through the dealers in Hong Kong (72.1%) and through service stations (29.5%). It was quite rare for the factories to have direct contact with the oil company (only 3.3%). This showed that dealers and distributors formed the core in the sales of lubricants.

Criteria for the Factories to Select Different Brands of Lubricants

TABLE 4.8

CRITERIA FOR THE FACTORIES TO SELECT DIFFERENT BRANDS OF LUBRICANTS

	Percentage				
	Very Important	Important	Average	Irrelevant	Absolute Irrelevant
a. price	6.6	59.0	23.0	6.6	4.9
b. quality	34.4	41.0	13.1	8.2	3.3
c. convenience	18.0	44.3	16.4	11.5	9.8
d. technical support	6.6	39.3	31.1	16.4	6.6
e. delivery lead time	3.3	27.9	49.2	11.5	8.1
f. supply constantly	0.0	16.4	27.9	52.5	3.3

Quality (75.4% of factory considered it as important or above) and price (65.6%) of the lubricants were the most important criteria in selecting different brands of lubricants. However, the weight of quality was seemed to be much heavier than price, as 34.4 % of the factories considered price as a very important factor while there was only 6.6% of factories considered it as a very important factor. Another very important finding from the above table was the negligence of the usefulness of technical support to the factories. Since there was only 46% of the factories considered it as important or very importance.

Personnel In-depth Interview Findings

For the Personal In-depth Interview Findings, thirty-eight factories and four of the Mobil's dealers were interviewed. The data of the thirty-eight interviewed factories could be found in Appendix 8.

The following information were summarized from the interviews with the factories and the dealers.

Plastic & Toys Industry

Eight plastic and two toys factories in the Pearl River Delta Area had been visited. One out of the eight factories in the plastic industry and both toys factories required power other than electricity. The fuel which the plastic factory required was industrial diesel oil (IDO) and the consumption was 300,000 liter per annum. The two toys factories also used IDO and the annual consumptions for them were also quite low (36,000 and 72,000 ltr). All three of the factories obtained IDO from local dealers. The most important criteria in selecting IDO were price and a constant supply.

The types of lubricants which the factories required were usually hydraulic oil and engine oil. The hydraulic oils were usually used in the plastic injection machines. The plastic factories in China usually changed their

hydraulic oil once a year. For each injection machine, the average annual consumption rate was about 2 barrels (one barrel = 209 liters). Thus, the annual consumption rate of a company would depend on the number of factories and the number of machines in each factory. Generally speaking, the annual consumption of the factories ranged from 10 to 35 million liters. The consumption of engine oil was only small in quantity.

The channel for most companies to obtain their lubricants was through the Hong Kong dealers. These dealers also supplied lubricants to their Hong Kong factories and were responsible for transporting the lubricants to their Chinese factories. The remaining factories purchased their lubricants in China themselves. They usually purchased lubricants through two sources, the first one was through service stations and the second was through the local dealers, for example, Sun Oil company Ltd.

Six out of the eight visited plastic factories used lubricants from Shell and only three from Mobil. (The two toys factories did not use lubricants.) Moreover, the factories usually did not use lubricants of only one brand. Four of the visited factories used lubricants from more than one supplier.

The market for hydraulic oils in the plastic industry was of large potential. Since the quality of local lubricants was far inferior to the imported ones, most of the plastic factories in Shenzhen and the Pearl River Delta

area used imported lubricants. The main competitors in this market were the other imported brands, such as Shell and Caltex. They were very active in this market.

The main criteria for these factories to select different brands of lubricants were quality and price. However, negligence of the important of technical support from the oil companies or dealers was a common mistake in this industry.

Construction Industry

The following information about the construction industry was supplied by the Mobil's dealers and distributors.

Construction companies required LPG, Diesel Fuel and Gasoline in the construction site. The LPG was mainly used as a fuel in welding, while electric generators and almost all other machines in construction sites required diesel oil as the main source of power. Gasoline was used by small cars. The monthly consumption depended on the size of the construction project.

The channels for getting the fuels were very different among different construction companies. Usually foreign constructors would obtain the LPG and gasoline exclusively from foreign oil companies like Mobil. For the diesel oil, part of the supply was from local oil dealers and part of it was from the Hong Kong dealers. Although the price of the

local diesel oil was only 1/2 to 1/3 of the imported ones, the supply of it suffered from seasonal fluctuation. January and February were the months with the most intense shortage.

For the local constructors, only LPG would be from Hong Kong dealers and all the others would be from local dealers. The main reasons were the lower price of local fuel products and the special personal relation between the contractors and the oil dealers. This relation could maintain a constant supply for the company even in the most shortage period.

The criteria in choosing different sources of fuels in general were price and adequate supply. Quality was also stressed in gasoline.

For lubricants, all gear oil, cutting oil, engine oil and hydraulic oil were required. Engine oil and hydraulic oil were mostly required in large quantity, while the others were only in small amount. The monthly consumptions were also affected by many factors. However, the main determinants were the size of the construction project and the degree of mechanization.

The main sources of lubricants were through the Hong Kong dealers. The most active dealers in this market were the dealers for Mobil and Shell. The most important criteria in selecting different brands of lubricants were quality, technical support and price.

Machinery

The following information was also obtained from the Mobil's dealers. The monthly consumption of IDO by the machinery factories was about 10,000 to 250,000 liters. The consumption depended on the size and the output of the factories. A majority of factories obtained their diesel oil from local dealers while most of the remaining ones were the customers of the Shell's dealers.

The criteria in selecting diesel oil were price and a constant supply.

Engine oil and hydraulic oil were the main lubricants used in the factories. Their consumption was mainly dependent on the size of the factories and the type of machines which the factories were using. Most of the factories obtained their lubricants from Hong Kong dealers and only a small portion obtained their lubricants from local dealers.

The selection criteria for the lubricants were quality convenience and price. In this industry, the awareness of the importance of technical support was much higher. Many of the factories also wanted their dealers to provide technical support in purchasing lubricants.

Electric Components & Equipment

The following information was also supplied from Mobil's dealers. The fuel used in this industry was used as

power source in alternation to electricity. Diesel oil was used in the electric generators of the company to continue production when there was no electricity supply.

The consumption of a factory would depend on the size of the factory, the duration of stoppage of electricity supply and the output of the factory. The average consumption was between 20,000 to 40,000 liters. Most factories obtained their IDO from the local dealers. The main criteria in selecting Diesel Oil was price, all the factories consider it as an important factor or above. The other important criteria was a constant supply.

The lubricants which the factories used were engine oil and hydraulic oil. The amount used were very small and usually they did not have a constant supplier for these products. Imported lubricants were preferred because quality was the most important criterion in selection. The other selection criteria included price and convenience.

Food Processing

The following information was supplied by the Mobil's dealers. Usually, food processing factories are state-run enterprises and they did not require any fuel as its power source besides electricity.

The lubricants required were engine oil and hydraulic oil, the amount of engine oil required was quite small and thus the factories did not have any constant supplier for

this item. For the hydraulic oil, the quantity required was much larger and the factories obtained its hydraulic oil from the local dealers. The criteria for selecting lubricants were price and convenience. Unlike other industries, quality was not viewed as important as in elsewhere. The main reason might be due to the fact that most of the food processing factories in Pearl River Delta were state-run and that they usually had firm relationship with those state-run oil dealers.

Metals/ Metal Production

Most of the metals/ metal production facilities in Pearl River Delta Area were only small factories and there was only one large steelmill in Shenzhen, the Hua Mei Steelmill. More detailed information of this steelmill would be shown later.

In metal industry, LPG and IDO were the fuels used by this industry. LPG was used in welding and cutting the metal parts. The annual consumption for one factory was between 2,000 to 40,000 kg.

As local supply of LPG was very inadequate, most of the factories use imported LPG. The market potential was thus very large. The market leader in this field was Shell. The factories usually purchase their LPG through nearby gas stations or retail outlets and with few of them purchased through local dealers. IDO was used in heating the metal

parts. The annual consumption rate was between 24,000 to 100,000 liters.

For IDO, they usually obtained their supply from local suppliers. The main determining factor in selecting different brands of IDO were price and constant supply. As the price of local IDO was only one-third to half of those imported ones, local suppliers nearly dominated this market with little challenge from the imported IDO's.

On the other hand, these industries also required a wide variety of lubricants. The lubricants required were related to the procedure in production. The main lubricants required by the metal cutting industries included cutting oil and hydraulic oil. The smelting industry required gear oil and hydraulic oil. Two-third of the market for lubricants in this industry was occupied by the Hong Kong dealers. For the remaining one-third of the market, Sun Oil Limited, a special local oil company, almost dominated in it. This local oil company had been mentioned in the competitors profile report.

The criteria in selecting different brands of lubricants were usually quality, technical support and price. Technical support was very much stressed in this industry since this industry required a wide variety of lubricants.

Steelmill

Hua Mei Steelmill was the only steelmill which we could

identified in Shenzhen SEZ. It was located in the Shekou Industrial Zone. The steelmill was a joint venture between Hong Kong China Merchant's Enterprises and the Shenzhen Industrial Development Council. The steelmill used 20' heavy fuel oil as the fuel in furnace. Its heavy fuel oil consumption rate last year was about 500tons. Apart from heavy fuel oil, the mill also used 2 tons of lubricants and 4-5,000kg of grease last year.

Owing to the shortage of raw materials, especially the iron ore, in the last year, the actual production period in the last year was only about three months. The machines used in the factory came from Shanghai. However, the factory used imported heavy fuel oil and imported lubricants. The heavy fuel oil was supplied from Caltex while the lubricants were furnished from Shell and CRC.

Hotel/ Restaurant

Fourteen hotels had been visited. Thirteen of them required diesel oil as fuel, while seven others required LPG in addition. The average annual consumption rate of LPG in a hotel was about 200,000kg. The individual rate was dependent on the size and turnover of the hotel /restaurant. The main channel for getting the LPG was through Hong Kong dealers and the other sources were those large local dealers, such as, Shenzhen Petroleum Company and Shenzhen Gas Company. On the contrary, most of the hotels obtained their diesel oil from local suppliers with very few of them

supplied by Hong Kong dealers. The average annual consumption rate of IDO was about 550,000liters. The criteria in selecting sources were price, convenience and constant supply.

The lubricants used by the hotel/ restaurant industry were very small in quantity. They usually did not have a constant supplier for lubricants. The lubricant required is usually engine oil and it is usually used in the boilers of the hotels and restaurants. The criteria in selecting lubricants were price and convenience.

As the local supply of LPG was very inadequate, most of the hotels used imported LPG. Shell was the market leader in the sales of LPG to the hotels. The success of Shell in this market was due to the all ready facilities of Shell from filling of LPG gas to the transportation of LPG to the customers.

In view of the IDO market, it was dominated by the local suppliers. As the price of the local IDO was only 1/2 to 2/3 of those imported ones, it was quite difficult to break the dominance of the local supplier in this market.

Dyeing and Knitting

As the dyeing industry in Hong Kong was considered to be a highly polluting and irritating industry, many of the Hong Kong dyeing factories had already moved to China. As water supply was the main determining factor in selecting

the site for a dyeing factory, most of these Hong Kong dyeing factories were concentrated at Danshui, Dongguan and Shenzhen where water supply was abundant.

In the dyeing procedure, a boiler was required to produce heat to fix the dyes in the cloth. Most of the dyeing factories used heavy fuel oil as their fuel in boiler. The consumption rate for a factory was between 400,000 to 30,000,000 liters, depending on the size and the annual production of the factory. Seven dyeing and one knitting factories had been visited. The dyeing factories found in Dongguan and Shenzhen were usually larger than those found in Danshui. Fuel oil was the major fuel used by the boilers in these factories, since all the responding factories required fuel oil as other source of energy. The annual consumption rate ranged from 400,000 to 30,000,000 liters. All the visited factories obtained their fuel oil from the Hong Kong dealers or directly from the foreign oil companies. Caltex, Esso and local suppliers almost dominated the market in Shenzhen and the Pearl River Delta Area. The main reasons for their success in this market were their low price and adequate transportation facilities. Heavy fuel oil was regarded as a type of bulky and dirty fuel, it had to be transported by special tankers. The selecting criteria from different sources were price, a constant supply and convenience.

For the lubricants, the major lubricant used was engine oil. The quantity required was only in small amount and the

lubricants were usually obtained from the same dealers which supplied them with fuel oil. The criteria in selecting lubricant were convenience and quality.

Others

There were four factories falling into the category of "Others". They were one tapes factory, one zipper factory and two feedmills.

The tapes factory did not require fuel as another source of energy and it consumed only a small amount of lubricants.

The fuel that the zipper factory used was IDO. It consumed only a small amount annually (36,000 Ltr).

The two feedmill factories identified in Shenzhen SEZ were Far East Gold Coin Feedmill in Shekou Industrial Zone and Chai Tai Conti Shenzhen Ltd. in Nantou Industrial Zone. Far East Feedmill was a wholly owned Hong Kong investment and while Chai Tai Conti was a wholly owned Thailand investment. Both of these factories used heavy fuel oil as the fuel in heating up and baking the feeds. The annual heavy fuel oil consumption rate depended on the annual production of the factories. Lubricants were also another necessity in these factories. The lubricants used in these factories were the Mobilgear 600 series.

TABLE 4.9

A COMPARISON BETWEEN THE TWO FEEDMILLS

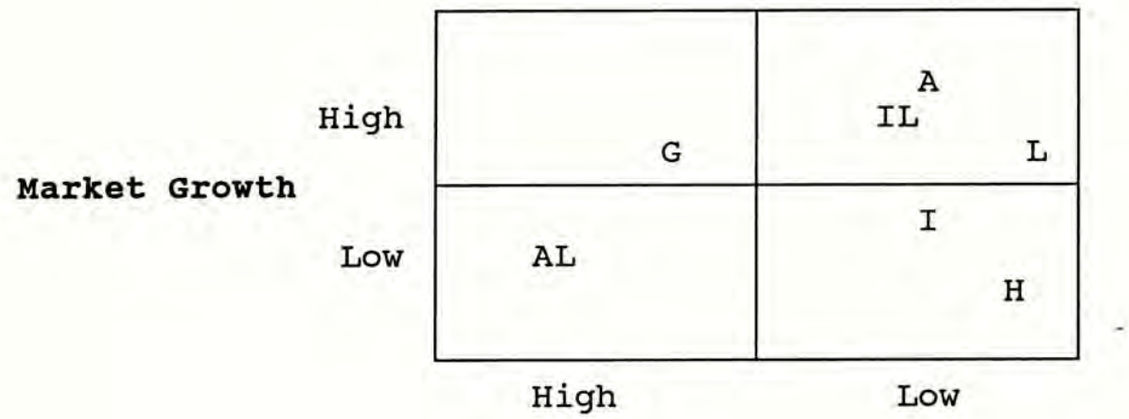
Feedmill & Ann. Prod.	Lube Brand & Ann. Cons.	Source	Fuel Brand & Ann. Cons.	Source
Far East (30000tons)	Mobil (4 tons)	Mikong	local (12000tons)	Shekou Petroleum Company.
Chai Tai (35000tons)	Caltex (5tons)	Caltex Dealer	Caltex (20000tons)	Caltex Dealer

The annual production of Chai Tai Conti Feedmill was expected to increase in the next few years. The feedmill was expected to operate at its maximum rate, 100,000 tons per year, in five years' time. Undoubtedly, the annual consumption of lubricants and fuels would also increase proportionally corresponding to the production rate increase.

CHAPTER V

RECOMMENDATIONS - MARKETING STRATEGIES FOR MOBIL

Overall Positions of Mobil's Product Portfolio in the BCG Matrix



G: Gasoline
A: Automotive Diesel Oil
I: Industrial Diesel Oil
L: Liquid Petroleum Gas
H: Heavy Fuel Oil
AL: Automotive Lubricant
IL: Industrial Lubricant

From the above figure, it can be seen that Mobil has products in all four quadrants of the BCG Matrix. Gasoline is in the "STAR" position. Automotive Lubricant is in the "CASH COW" position. Automotive Diesel Oil, Liquid Petroleum Oil and Industrial Lubricant are in the "QUESTION MARK" position, while Industrial Diesel Oil and Heavy Fuel Oil are in the "DOG" position.

The implications for the Strategic Positioning in the BCG Matrix are shown in Table 5.1 below.

TABLE 5.1

IMPLICATIONS FOR STRATEGIC POSITIONING EMERGING FROM THE GROWTH-SHARE MATRIX (BCG MATRIX)

Business Category	Market Share Thrust	Business Profitability	Investment Required	Net Cash Flow
Star	Hold/Increase	High	High	Around zero/ slightly negative
Cash Cows	Hold	High	Low	Highly positive
Question Marks*	Increase	None or negative	Very High	Highly negative
	Harvest/Divest	Low or negative	Disinvest	Positive
Dogs	Harvest/Divest	Low or negative	Disinvest	Positive

* There is a selective application of the strategy depending on the decision made with regard to the business: either to enter aggressively or withdraw.

Based on the information obtained in the previous chapters and the positions of the products in the BCG Matrix, the Marketing Objectives and Marketing Strategies for Mobil Hong Kong are formulated for individual product lines.

Marketing Plans for Individual Product Lines

Gasoline

As the strategic position of Mobilgas is in the "STAR" position, it is recommended that Mobil should increase or hold its market share.

Market Objective

To increase its market share from 31% to 33% in 1991.

Marketing Strategies

Price

Mobilgas should be priced at the same level (RMB$ 3.56/liter) as its major competitors, such as Shell and Caltex, in the premium market.

Distribution

Sales at different service stations should be analyzed. Stations with particularly low sales volumes should be closed down. New stations should be set up at convenient locations where they can easily be seen and on main transportation routes between Hong Kong and other Pearl River Delta Area cities, for example, Huayang and Dongguan. Since thousands of processing factories have been established in these places, the transportation loads everyday are very heavy.

Promotion

1. Theme

The high quality of Mobilgas should be stressed. Its competitive strengths are its cleanliness and completeness in its combustion, as well as its additional additives that help in the maintenance of car engines.

2. Channels

Promotion channels should include sign boards on main transportation routes and at Mobil service stations. Give-away gifts such as car stickers and calendars should also be used for promotion.

Automotive Diesel Oil

Mobil's ADO is characterized by high market growth and low market share. It is in the "QUESTION MARK" position in the BCG Matrix. The suggested strategy for the position is either to increase market share or to harvest/divest.

Here the strategy to increase market share is chosen for ADO because of its great market potential and its relatively low cost in promotion as it can share the same distribution and promotion channels with Mobilgas. In addition, Mobil can make use of its good image in gasoline to bring its ADO product.

Marketing Objective

To increase market share from 8.3% to 10% in 1991.

Marketing Strategies

Product

The feasibility of introducing red diesel oil should be studied in order to see the possibility to tap the lower end market. Red diesel oil is actually of the same quality of ordinary ADO, but its price is lower owing to the tax system in Hong Kong. The use of red diesel can increase the competitive power of MOHK in the ADO market as the price gap between local and imported ADO will be narrower.

Promotion

1. Theme

Since Mobil is in the high end market segment, the promotion theme would be to educate the drivers that the use of high quality ADO will lower the maintenance cost of cars. If the introduction of red diesel oil is proved feasible, another theme in promotion is to build the product awareness of Mobil Red Diesel.

2. Channels

Radio advertisement can be used as many drivers listen to the radio while driving. In addition, promotion pamphlets to stress the importance of car maintenance by using high quality ADO should be given away at service stations.

3. Target Market

The suggested target market for red diesel would be

taxi drivers and car fleets of large hotels.

Distribution

The distribution strategy for ADO would be the same as that for gasoline suggested above as they share the same distribution channels.

Industrial Diesel Oil

The position of Mobil IDO in the BCG Matrix is "DOG". The suggested strategy is to harvest/divest. The major users are dyeing factories, metal accessory factories and hotels/restaurants. Their criteria for choosing fuels are price, convenience and constant supply, with price as the most important.

Marketing Objective

To maintain market share at 12.5% and increase profit margin from 7.5% to 8%.

Marketing Strategies

Product

Again the feasibility of introducing red diesel oil should be studied in order to increase profit margin. Moreover, the supply of local IDO is subject to seasonal change. Usually, there is shortage of supply in January and February. Thus, an adequate supply with cheap red diesel is the key to success in this market.

Distribution and Sales Force

At the present moment, most of the IDO from Mobil are sold through dealers. There are two sales representatives taking care of the Pearl River Delta Area market. They are mainly responsible for after sales service. Actually the best marketing strategy is to carry out direct sales and in-direct sales at the same time. The two salesmen can aim at those large customers and do some direct sales. Since direct sales can enable the price to be more flexible and thus the competitive power can be enhanced.

On the other hand, for those customers which do not have a large consumption, indirect sales would be a very good strategy since this can reduce the financial requirements and manpower in these markets.

Target Segment

For the direct sales, the target customers will be those customers with large consumption. They include large hotels and dyeing factories such as Shenzhen Bay Hotel, Xili Lake Holiday Resort , Honey Lake Country Club and Taishan No.1 Weaving factory.

Liquid Petroleum Gas

Mobil's LPG is a "QUESTION MARK" in the BCG Matrix. The suggested strategy is either to increase market share or to harvest/divest.

The low market share is mainly due to the inadequate LPG filling and transportation facilities of MOHK in Shenzhen. However, as mentioned in product profile section, the market potential of LPG is enormous. Since there is continuous shortage of local LPG supply and the market demand in both the domestic and industrial fields are all increasing.

Marketing Objective

To increase market share from 0.7% to 2% in 1991.

Marketing Strategies

Distribution

At present, there is only one Mobil dealer who supplies LPG to the Shenzhen customers. The LPG filling and transportation facilities of this dealer are both inadequate. In order to compete with its major competitors (Shell and Caltex), Mobil should look for one dealer solely responsible for the LPG market. A joint venture should be formed with the dealer to install LPG tanks, LPG filling and transportation facilities. Outlets of LPG should not be just confined in the service stations. More outlets should be opened in the new residential area to serve the domestic market and also in the industrial zones to serve industries.

Product

For domestic users, LPG in 11.5 and 16 kg bottles

should be stressed. For the industrial users, LPG in larger bottles, for example, 16 and 50kg bottles should be paid more attention.

Target Customers

The target customers include metal accessory factories which need LPG in welding and cutting metal parts, hotels and restaurants which use LPG in cooking and for boilers, and domestic users in larger cities such as Shenzhen and Guangzhou.

Heavy Fuel Oil

The strategic position of Mobil's HFO in the BCG Matrix is "DOG". The suggested strategy is to harvest/divest.

The HFO market is not an attractive market because HFO is a dirty fuel and special tankers are required to store and transport it, and hence, higher cost is required.

Marketing Objective

To maintain market share, minimize investment and harvest.

Marketing Strategies

Since the distribution of this product is through dealers, an incentive scheme is suggested to boost up sales. The incentive scheme will be an incremental increase in discount offered to dealers on sales quantity basis. An

example is that a sale of more than 100 units of 200 liter drum will get an incremental discount of 5%. This will encourage the dealers to sell more Mobil products.

Lubricants

The strategic positions of Mobil's Automotive Lubricant and Industrial Lubricant are "CASH COW" and "QUESTION MARK", respectively. The suggested strategy for Auto Lubricant is to hold market share, while that for Industrial Lubricant is either to increase market share or to harvest/divest.

Marketing Objectives

Automotive Lubricant

To maintain market share at 60% and seek cashflow.

Industrial Lubricant

To increase market share form 15% to 17% in 1991.

Marketing Strategies

Automotive Lubricant

1. Promotion

The promotion theme for Mobil's Auto Lubricant is high quality since it is its competitive strength. The promotion channels will be through sign boards at service stations. In addition, car stickers and calendars can be used as give-away gifts upon purchasing of Mobil's Automotive Lubricant.

Industrial Lubricant

1. Sales and Technical Support

As different industries will require different lubricants, technical support is very important in this market. Most people do not have enough knowledge in selecting the types of lubricants they should use in their machines. Therefore, technical services should include helping customers select the most appropriate lubricant as well as after sales support services.

At present, there are only two salesmen doing this support services in the Pearl River Delta Area. It is suggested that two more salesmen should be hired and trained in Hong Kong to work in the Area. Besides training about the technical skills, sales skills should also be emphasized. Large accounts, such as Kader in the plastic industry and Hua Mei in the steelmill industry, should be paid more attention in handling their needs.

Action Plan

1. Promotion Campaign for Gasoline, ADO and AL:

   - Preparation : 4 months
   - Launching : 2 months
   - Review

2. Constantly looking for suitable locations for new service stations and reviewing sales for exisiting stations to identify non-profitable ones.

3. Feasibility study of introducing red diesel oil in the market.

   - Time required : 3 months

4. Training the two salesmen to do direct sales to large customers of IDO.

   - Time required : 2 months

5. Looking for an exclusive dealer for LPG to form a joint venture so that Mobil can have its own LPG tanks, filling and transportation facilities to compete with its competitors.

6. Studying the feasibility of introducing a sales incentive scheme for HFO.

   - Feasibility study and design : 1 month

7. Recruiting and training two more salesmen to provide technical services for industrial lubricant customers.

   - Recruitment : 1 month
   - Training : 2 months

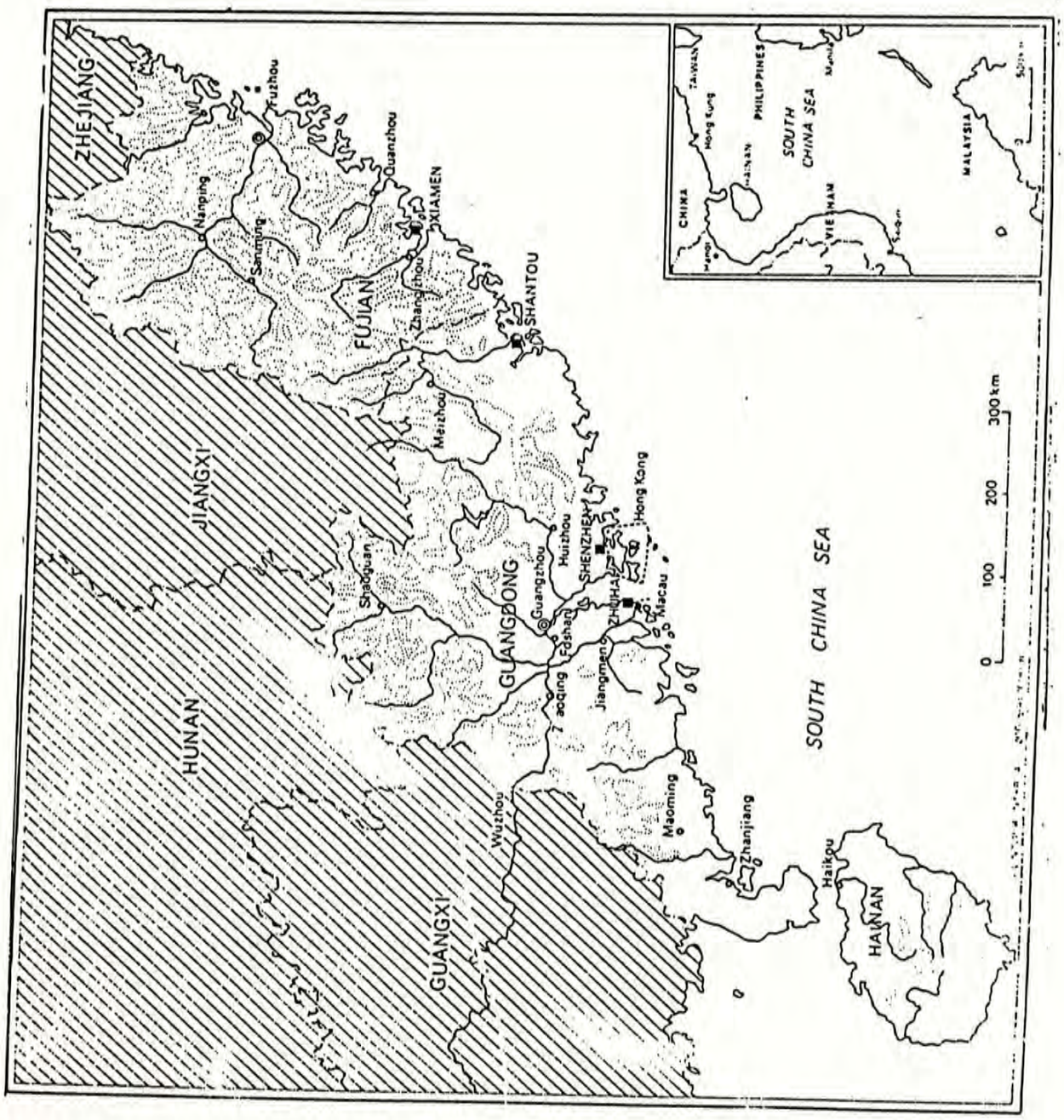
APPENDIX 1

LIST OF LARGE BASIC FACILITY CONSTRUCTIONS IDENTIFIED IN SHENZHEN

Item	Developer
Shekou Container Terminal	Shekou China's Merchant Company Ltd.
Shenzhen Hwangtian	Nanhai Oil Shenzhen Development
Splendid China & Fairy Lake Botanical Garden	
Shenzhen Dapeng Bay Yantian Harbour	
Futian Industrial Zone (New phase)	Hong Kong Him Yeung Group
Digial (Shenzhen) Production line	Digital
GongDong - HK Optical Fibre Communication Project	Shenzhen Bureau of Posts and Telecommunications Bureau and HK Cable & Wireless Co. Ltd.
Shenzhen Huaqiao City	
Luo Ma Zhou Custom Services Building	Shenzhen Urban Planning Bureau

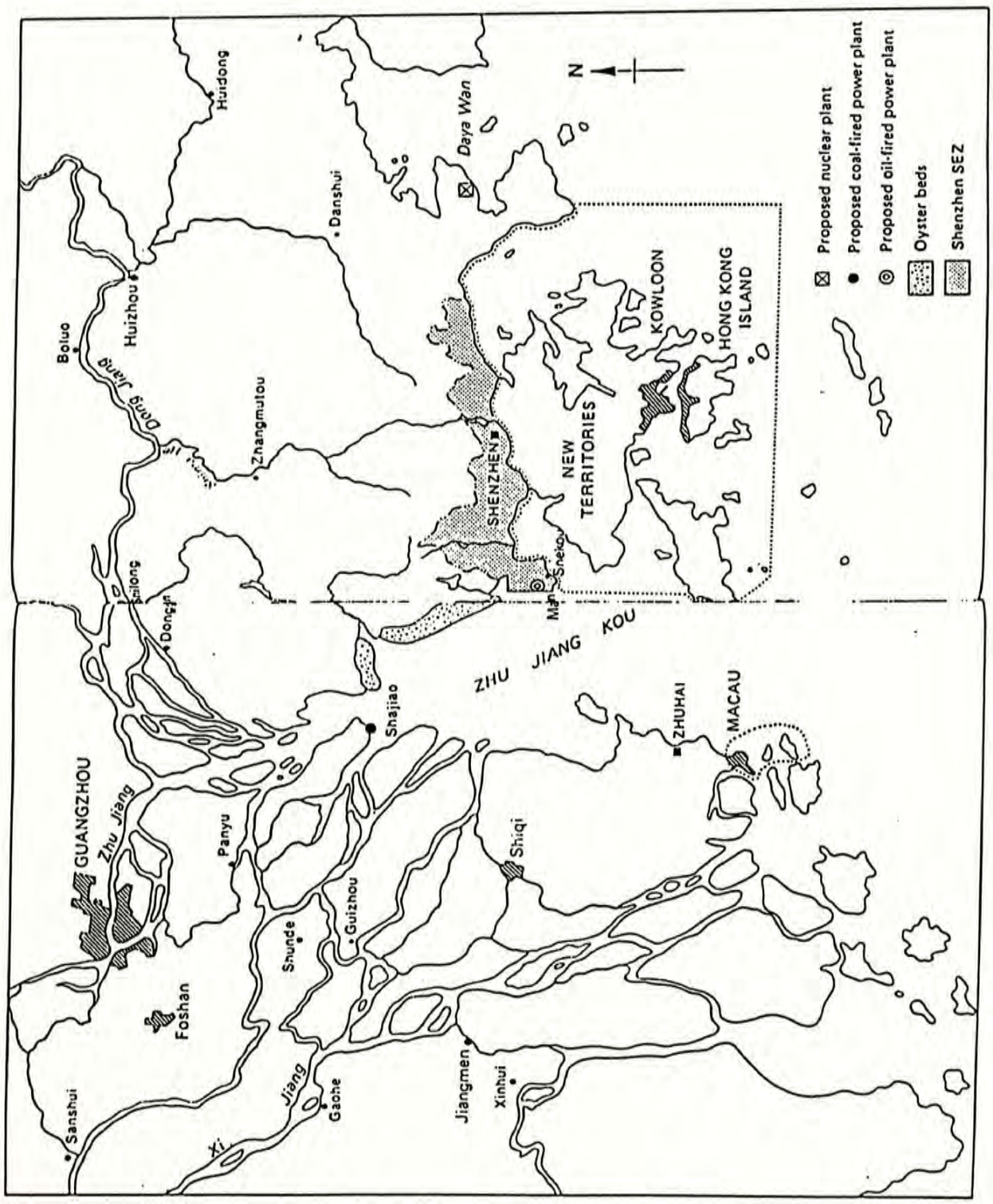
APPENDIX 2A

MAP OF GUANGDONG PROVINCE



APPENDIX 2B

MAP OF PEARL RIVER DELTA AREA



APPENDIX 3

QUESTIONNAIRE

{PLEASE CIRCLE THE APPROPRIATE ANSWER(S)}

1. What type of industry are you in?

   a. Plastic
   b. Construction
   c. Machinery
   d. Electric Components & Equipment
   e. Food Processing
   f. Metals/ Metal Production
   g. Hotel/ Restaurant
   h. Dyeing and knitting
   i. Others, please specify _____

2. Does your plant/ machines require power other than electricity?

   Yes No

   (If the answer is No, please skip question 3 to 5)

3. What type(s) of fuel are you using?

   a. LPG
   b. Diesel Fuel
   c. Gasoline
   d. Fuel Oil
   e. Others, please specify _____

4. Where do you obtain the fuels?

   a. Dealer in Hong Kong
   b. Dealer in China
   c. Direct from oil company
   d. Service station

5. What are your criteria in selecting different brands of fuels?

	Very Important	Important	Average	Irrelevant	Absolute Irrelevant
a. price	____	____	____	____	____
b. quality	____	____	____	____	____
c. convenience	____	____	____	____	____
d. technical support	____	____	____	____	____
e. delivery lead time	____	____	____	____	____
f. supply constantly	____	____	____	____	____

6. Your monthly consumption on fuels are:

LPG	_____kg
Diesel Oil	_____Ltr.
Gasoline	_____Ltr.
Fuel Oil	_____Ltr.

7. What type(s) of lubricants are you using?

a. Gear Oil
b. Cutting Oil
c. Engine Oil
d. Hydraulic Oil
e. Others, please specify _____

8. Where do you obtain the lubricants?

a. Dealer in Hong Kong
b. Dealer in China
c. Direct from oil company
d. Service station

9. What are your criteria in selecting different brands of lubricants?

	Very Important	Important	Average	Irrelevant	Absolute Irrelevant
a. price	____	____	____	____	____
b. quality	____	____	____	____	____
c. convenience	____	____	____	____	____
d. technical support	____	____	____	____	____
e. delivery lead time	____	____	____	____	____
f. supply constantly	____	____	____	____	____

10. Your monthly consumption on lubricants is _____Ltr.

APPENDIX 4

COVER LETTER OF QUESTIONNAIRE

Dear Sir,

We are two MBA students of the Chinese University of Hong Kong and we are conducting a survey on the fuel and lubricants market in the Shenzhen Special Economic Zone as well as the Pearl River Delta Area. Enclosed please find a questionnaire. We shall be very grateful if you can spare a few minutes to answer the questions and post the questionnaire back to us in the enclosed return envelope. Thank you very much for your co-operation and your prompt action would be highly appreciated.

Yours faithfully,

Jonathan Leung Albert Yau

APPENDIX 5

LIST OF ABBREVIATIONS OF PRODUCT LINES

ADO	Automotive Diesel Oil
AL	Automotive Lubricant
HFO	Heavy Fuel Oil
IDO	Industrial Diesel Oil
IL	Industrial Lubricant
LPG	Liquid Petroleum Gas

APPENDIX 6

MARKET SHARE REPORT FOR 1988

Product	MOBIL	SHELL	CALTEX	ESSO	CRC	BP	TOTAL
Gasoline	30.9	29.9	28.0	11.2	0.1	0.0	100.0
Diesel Oil							
- ADO	8.3	32.2	4.5	22.1	33.0	0.0	100.0
- IDO	12.5	42.8	14.7	27.4	0.0	2.6	100.0
- Total	8.7	33.1	5.4	22.6	29.9	0.2	100.0
LPG	0.7	85.2	4.6	0.0	4.8	4.6	100.0
Kerosene	0.0	1.8	0.3	10.1	87.8	0.0	100.0
Fuel Oil	2.0	12.4	0.3	21.5	63.8	0.0	100.0
TOTAL	7.0	23.5	3.0	17.4	36.7	0.2	87.7

APPENDIX 7

LIST OF MOBIL'S INDUSTRIAL LUBRICANT PRODUCTS

Product	Product Nature
Mobilgard	Lubricating oils for trunk piston type diesel engines
Mobil DTE Oil	Premium quality turbine and circulation oils
Mobil DTE 10 Series	Antiwear hydraulic oils applicable over wide temperature ranges
Gargoyle Arctic Oils	Refrigeration compressor lubricant
Mobilgear 600	A new generation of gear oils for highly loaded gears
Mobillux EP	Multiservice extreme pressure grease
Mobilplex	Multiservice extreme pressure grease
Mobil Rarus 400	Mineral oil based aircompressor lubricants
Mobiltac	Open-gear lubricants
Mobiltemp 0,1,2&78	High temperature industrial greases

APPENDIX 8

DATA OF FACTORIES INTERVIEWED

MARKET SURVEY ON SHENZHEN

COMPANY NAME	INDUSTRY	LUBE VOL. Annual (ML)	LUBE SUPPLIER	LUBE BRAND	FUEL TYPE	FUEL VOL. Annual (Ltr/Kg)	FUEL SUPPLIER	FUEL BRAND
Kader	Plastic	35	Thro' HK Dealer	Shell	IDO	300000	Local Supplier	local
Qualidux Ind. Co.	Plastic	30	Thro' HK Dealer	Shell/Mobil		0		
Hanny Magnetics	Plastic	6	Thro' HK Dealer	Shell		0		
Great Field	Plastic	20		Mobil		0		
Wah Shing Toys Co. Ltd.	Plastic	20		Shell/B.P		0		
Playmates Holdings Ltd	Plastic	20		Shell/Mobil		0		
ACME Magnetic Tapes	Tapes	10		CRC/Shell		0		

Han Kee Metals	Metals	LPG	1920		
		IDO	24000		
Hing Mei Zipper Factory	Zipper	IDO	36000		
Taishan No.1 Weaving Factory	Dyeing	Fuel Oil	30000000	Esso's Dealer	Esso
Shenzhen Bay Hotel	Hotel	LPG	230000	Tai Chong Hong	
		IDO	800000	Local Supplier	local
Bamboo Garden Hotel	Hotel	IDO	300000	Shenzhen Petroleum Co.	local
New Garden Hotel	Hotel	IDO	500000	Shenzhen Gas Co.	local
		LPG	200000	Local Dealer	Caltex/Shell
China Travel Services Hotel	Hotel	IDO	300000	Shenzhen Petroleum Co.	local
Shenzhen International Hotel	Hotel	IDO	200000	Shenzhen Gas Co.	local
Construction Hotel	Hotel	LPG	250000	Shenzhen Gas Co.	local
Shenzhen Hotel	Hotel	IDO	200000	Shenzhen Petroleum Co.	local
Jing Hu Hotel	Hotel	IDO	300000	Shell Dealer	Shell
Namyang Hotel	Hotel	IDO	265000	Shenzhen Gas Co.	local
Century Plaza Hotel	Hotel	IDO	400000	Local Supplier	local
		LPG	220000	Shell Dealer	Shell
Huanyu Hotel	Hotel	IDO	200000	Shenzhen Petroleum CO.	local
		LPG	150000	Meikong	Mobil

Herald & Plastic	Plastic	16		B.P.	0		
Perfekta Enterprises Ltd.	Plastic	25		Shell/Sun Oil	0		
Fountain Set (Holdings) Ltd.	Dyeing			Fuel Oil	2400000	Esso's Dealer	Esso
Hua Yang County weaving factory	Dyeing			Fuel Oil	400000		Caltex
New Nansan	Dyeing			Fuel Oil	20400000		Caltex
Wai Yuen Weaving Factory	Dyeing			Fuel Oil	400000		
Wai Hing Weaving Facyory	Dyeing			Fuel Oil	400000		
Hong Kong City Dolls Factory	Toys			IDO	72000	Local Supplier	local
HK Man Wah Trading Cpy.	Knitting	5016	Kwong Wing Hong				
Yat Ming Enterprises Cpy.	Toys			LPG	18000	B.P	B.P
				IDO	36000	local Supplier	local

Jing Du Hotel	**Hotel**				**IDO** **LPG**	**400000** **324000**	**Shenzhen Gas Co.** **Shell Dealer**	**local** **Shell**
Xili Lake Holiday Resort Village	Hotel				IDO LPG	780000 200000	Shenzhen Gas Co. Shell Dealer/ Shenzhen Gas Co.	local Shell/Local
Honey Lake Country Club	Hotel				IDO LPG	900000 250000	Shenzhen Gas Co. Shell Dealer/ Shenzhen Gas Co.	local Shell/Local
Hua Mei Steel Mill	Metal	20000	Shell Dealer	Shell	Fuel Oil	40000	Caltex Dealer	Caltex
Far East Gold Coin Feedmill (China) Ltd.	Feedmill	4000	Mikong/Nantou	Mobil	Fuei oil	1200000	Shekou Petroleum Co.	local
Chia Tai Conti Shenzhen Ltd.	Feedmill	5000	Caltex Dealer	Caltex	Fuel Oil	2000000	Caltex Dealer	Caltex
Victory Onwards Dyeing & Weaving Co.	**Dyeing**	**3500**	**Thro' HK Supplier**		**Fuel Oil**	**2400000**	**Thro' HK Dealer**	

BIBLIOGRAPHY

Books

Jao, Y.C., and Leung, C.K. (Editors) China's Special Economic Zones : Policies, Problems and Prospects. Oxford University Press, 1986.

Kinnear, Thomas C., and Taylor, James R. Marketing Research: An Applied Approach. 2nd ed. McGraw-Hill Book Company, 1983.

Lehmann, Donald R. Marketing Research and Analysis. 3rd ed. Irwin, 1989.

Tull, Donald S., and Hawkins, Del I. Marketing Research : Measurement and Method. 3rd ed. New York : Macmillan Publishing Company, 1984.

Periodicals

"A Tighten Rein." Asiaweek 12 January 1990, p.44 - 47.

"Diesel Vehicles and Heavy-Duty Trucks Continue to Sell Well." China Market February 1990, p.22.

Shenzhen Year Book 1989

"Tian Ji-Yun Talked about Coastal Economic Development Strategy." The Directory of China Trade 31/32 (March/April 1989) : 6 - 9.

"40 Years of China's Power Industry : Development and Problems." China Market October 1989, p. 17 - 20.

(The abbreviations "vol." and "p." or "pp." are omitted when a reference cites both volume and page(s) of the same work. The appropriate order is volume number first, page number second, with a colon between them. For example, the fourth entry under Periodicals gives the volume number 31/32 followed by the page number 6 - 9.)